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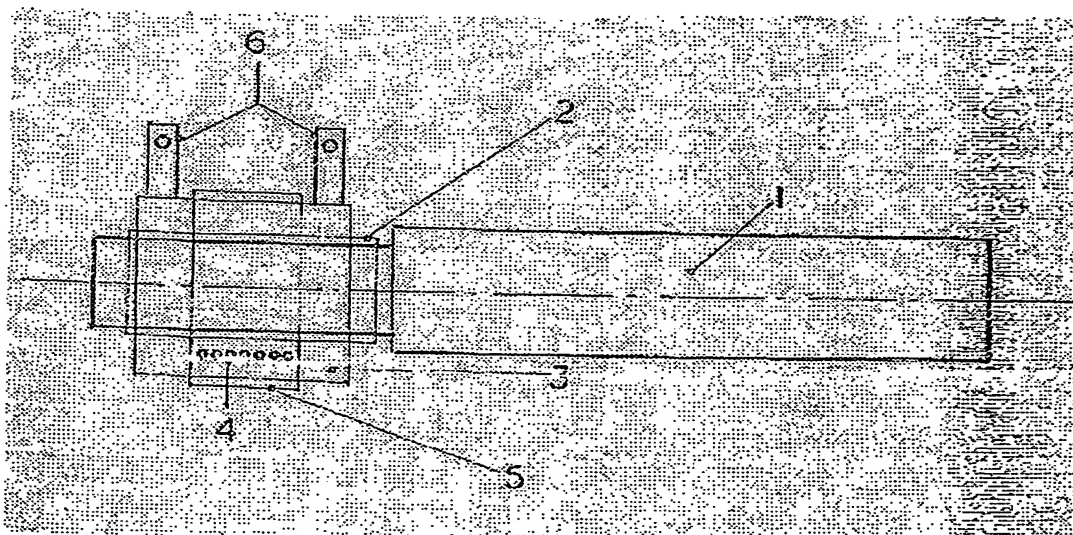
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(54) Title: PROCESS FOR THE PREPARATION OF LOW CONTACT RESISTANCE CONTACT ON A HIGH TRANSITION TEMPERATURE SUPERCONDUCTORS

(57) Abstract: Disclosed is a three layer process for making contact points to a high transition temperature superconductor (HTSC), particularly to $(\text{Bi,Pb})_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{7-x}$, with and without silver in the superconductor. The contact structure is a three layer configuration with a perforated silver foil (3) sandwiched between two metal spray gun deposited silver layers (2,5) and subsequent heat treatment in air. The contact has been made on tubes and rods (1). The silver contacts are capable of carrying a continuous current of 200 Amps without adding any substantial heat load to the cryogen used to cool the HTSC. The contact resistance at 4.2 K is in the range of $1.5 \times 10^{-8} (\text{ohm-cm}^2)$ to $8.5 \times 10^{-8} (\text{ohm-cm}^2)$ in zero applied field.